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12/6/96

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
EMERGENCY RESPONSE BRANCH
9311 GROH ROAD, ROOM 216
GROSSE ILE, MI 48138-1697

DEC 06 1996

REPLY TO ATTENTION OF:

SUBJECT: ACTION MEMORANDUM - Request for a Time-Critical Removal Action at the Dayton Electroplate Site, Dayton, Montgomery County, Ohio (Site ID #A562)

FROM: Steven L. Renninger, On-Scene Coordinator
Emergency Response Branch - Section 1 for SR

TO: William E. Muno, Director
Superfund Division

THRU: Richard Karl, Chief R. Karl
Emergency Response Branch

I. PURPOSE

The purpose of this memorandum is to request and document your approval to expend up to $1,945,950 in order to mitigate threats to public health, welfare and the environment at the Dayton Electroplate site located at 1030 Valley Street, Dayton, Ohio. This action is necessary to mitigate the immediate threat to public health and the environment posed by the presence of uncontrolled hazardous materials abandoned on site, including sodium cyanide, hydrochloric acid, and sulfuric acid.

The response action proposed herein will mitigate site conditions by removal and off-site disposal of the hazardous substances and wastes. Additional activities will include site security and decontamination and removal of plating vats and tanks. Toxicity and incompatibility of the hazardous substances and wastes and the site's proximity to residential neighborhoods require that this removal be classified as time critical. The project will require an estimated 120 working days to complete.

There are no nationally significant or precedent-setting issues associated with the Dayton Electroplate site. The Dayton Electroplate site is not on the National Priorities List (NPL).

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # OHD 004 278 628

A. Physical Location

The Dayton Electroplate (DE) site is located at 1030 Valley Street, Dayton, Montgomery County, Ohio. The geographical coordinates for the site are latitude 39 degrees 46.724 minutes north and longitude 84 degrees 9.762 minutes west. The DE site is located in an industrial/residential area within the northeast portion of Dayton, Ohio. The site occupies approximately 4 acres bordered on the north by Valley Street and residences, to the south by State Route 4, and by Stanley Avenue 500 feet to the east. Residences are located directly to the north of the site across Valley Street. A locked fence presently surrounds the site providing limited, temporary security.

B. Site Description

The DE site includes two site buildings covering 60,000 square feet and four separate plating lines (See Attachment 3, Site Map). Building 1 (offices) and building 3 (plating lines 1 and 4) are attached. Building 2 contains plating lines 2 and 3 and a flammable storage area. The two DE site buildings include open manufacturing areas, four plating lines, process tanks, drum storage areas, water treatment area, and office space.

The building structure is in fair condition but is showing signs of deterioration with crumbling brick walls on the building's southern perimeter. Standing water was noted surrounding plating line #1 indicating plating tank leakage or the roof allowing rainwater to accumulate.

C. Site Background

Dayton Electroplate was formed in 1984 when it acquired the assets, including plating operations, from the Dayton Rust Proof Company. From 1984 until April 1996, DE conducted electroplating operations, including nickel, chrome, zinc and clear coatings. Dayton Rust Proof operated at the same address from 1980 until 1984 and generated similar F006, F007, F008, and F009 wastes. In 1985, DE plating lines included a total of 43,905 gallons of cyanide zinc plating solutions. Also, DE had nickel plating solutions totaling 10,945 gallons and 2,930 gallons of chrome electroplating solutions.

On August 8, 1991, the Ohio Environmental Protection Agency (OEPA) filed a complaint against Dayton Electroplate for violations of Ohio's hazardous waste laws which occurred at the operating facility.

On April 16, 1993, the OEPA conducted a follow-up hazardous waste inspection at the DE facility. OEPA inspectors noted that Dayton Electroplate did not initiate a closure plan for illegal storage units, including drum storage and roll-off box areas.

On February 14, 1994, the OEPA, through the Ohio Attorney General, filed a complaint for injunctive relief and civil penalty against Dayton Electroplate and Charles Borum (president) and Paul Borum (vice president) for hazardous waste violations. The complaint included 11 counts, including hazardous waste storage violations and failure to submit a closure plan.

On March 1, 1994, DE submitted an Ohio State Emergency Response Commission (SERC) facility identification form. The facility hazardous chemical inventory form identified the following chemicals utilized daily at the DE facility: hydrofluoric acid, hydrogen chloride, nitric acid, sodium cyanide, and concentrated sulfuric acid.

On July 6, 1994, the United States Environmental Protection Agency (U.S. EPA), Region V's, Norman R. Niedergang, Associate Division Director for Resources Conservation and Recovery Act Office (RCRA), issued a Complaint, Findings of Violations, and Compliance Order to DE for RCRA violations. The U.S. EPA's Compliance Order was finalized on March 14, 1995, and required DE to provide proper land disposal restriction (LDR) notification on all future hazardous waste shipments and pay a civil penalty of $5,400.

On May 4, 1995, the Ohio Assistant Attorney General (OAAG), Lori Massey, and DE President, Charles Borum, signed a Consent Order for DE to perform closure of all hazardous waste management units at the DE facility.

On November 15, 1995, OEPA, Division of Hazardous Waste Management's Elisabeth Rothschild conducted an inspection of the DE facility. The purpose of the inspection was to investigate a complaint that alleged that DE was storing hazardous waste on site. During the inspection, OEPA noted uncharacterized drums that contained waste from the nickel plating tanks. Also noted were unlabeled drums containing cyanide filter pads. OEPA noted that in addition to the drum violations, DE failed to comply with the terms and conditions of the May 4, 1995, Consent Order.

On August 27, 1996, OAAG's Lori Massey informed DE and DE President, Charles Borum, of violation of the May 4, 1996, Consent Order to perform closure and a February 29, 1996, Contempt Order. OAAG indicated that the State of Ohio was aware that DE was engaged in Chapter 7 Bankruptcy since April 12, 1996.

On September 12, 1996, OEPA, Division of Hazardous Waste Management's Michael Savage requested assistance from U.S. EPA, Region V's Emergency Response Branch (ERB) to conduct an emergency removal action at the abandoned DE site due to

substantial endangerment to both the local population and the environment. OEPA noted that DE filed for Chapter 7 bankruptcy on April 12, 1996, and soon thereafter ceased operations at the site. On August 28, 1996, OEPA inspected the abandoned site and observed acid vapor collecting near the ceiling of plating area #1 and a strong acidic odor permeating the building. OEPA noted that plating line #1 was large and the process tanks appeared full and in poor condition.

On October 11, 1996, U.S. EPA's On-Scene Coordinator (OSC), Steven L. Renninger, OEPA, and U.S. EPA's Superfund Technical Assessment and Response Team (START) conducted a site investigation at the DE site. During U.S. EPA's investigation, the OSC noted the presence of approximately 110 full to partially full plating vats, roll-off boxes, and miscellaneous waste tanks containing spent electroplating solutions totaling approximately 105,000 gallons. The 90 vats represent 4 intact plating lines in 2 separate buildings. Much of the waste in the vats and tanks is highly concentrated solutions of cyanide, chromium, zinc, nickel, chromic acid and heavy-metals-contaminated wastewater treatment sludge. Many of the vats and tanks were observed to be in a deteriorating state with potential to, and/or continue to leak.

Approximately 250 55-gallon drums and numerous smaller containers of plating solutions, plating wastes, oxidizers, corrosives, flammables, reactives, and unknowns were observed throughout the site with some stacked two to three high.

During the October 11, 1996, U.S. EPA site investigation, START collected drum and plating vat samples (see Table 1). Drum and vat samples were documented to contain acids (pH<1), including sulfuric acid and hydrochloric acid. Incompatible drums in proximity to each other were documented to contain sodium hydroxide (pH>13). Vats were documented to contain acids (pH<1) in proximity to drums and vats containing cyanide (6,500 ppm and 53,000 ppm).

III. THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The conditions at the DE site presents an imminent and substantial threat to the public health, or welfare, and the environment and meet the criteria for a removal action as stated in the National Contingency Plan (NCP), Section 300.415, Paragraph (b)(2), specifically:

1) Actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

During the October 11, 1996, U.S. EPA site investigation, the OSC identified open drums, plating vats, tanks, and roll-off boxes containing hazardous wastes. The drums,

Table 1 - Summary of Analytical Results
Dayton Electroplate Site
Dayton, Montgomery County, Ohio
October 11, 1996

Parameters	Sample Number					
	Drum-1	Drum-2	Drum-3	Vat-5	Vat-6	Vat-7
Phase	Liquid	Liquid	Liquid	Liquid	Liquid	Solid
Label Info	Sulfuric Acid	Hydro-Chloric Acid	Sodium Hydr-Oxide	Line 1	Line 1	Line 1
pH	<1	<1	>13	12.7	<1	NA
Sulfate	820,000 ppm	NA	NA	NA	NA	NA
Chloride	NA	380,000 ppm	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	10,000 ppm

Parameters	Sample Number				
	Vat-8	Vat-9	Drum-10	Drum-11	Vat-12
Phase	Liquid	Liquid	Liquid	Solid	Liquid
Label Info	Line 4	Line 4	Isopro-panol	Sodium Cyanide	Line 3
pH	NA	<1	NA	NA	<1
Cyanide (Total)	6,500 ppm	NA	NA	53,000 ppm	NA
Flashpoint	NA	NA	<74° F	NA	NA

containers, vats, and tanks contain a vast quantity of highly concentrated caustics, acids, heavy metals, cyanide, and solvents. The plating bath solutions and residues are listed as F007 and F008 hazardous wastes by 40 CFR 261.31. Sampling during the site investigation documented drum and plating vats to contain acids (pH<1), caustics (pH>13) and cyanide (53,000 ppm)

The cyanide and acid solutions are extremely toxic to human and animal life. During the October 11, 1996, U.S. EPA site investigation, the OSC and START identified numerous plating vats that were in a deteriorated state and elevated ambient air monitoring readings near plating area #1. During the August 28, 1996, OEPA investigation, investigators noted an acid vapor collecting near the ceiling of plating area #1. If these solutions were released and mixed inadvertently or intentionally, a toxic cloud of cyanide gas could become airborne and may affect the nearby population.

2) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release;

During the October 11, 1996, U.S. EPA site investigation, the OSC observed abandoned drums, tanks, vats, and roll-off boxes containing corrosive and cyanide waste to be open and in varying stages of deterioration. Plating vats were noted to be in poor, rusted condition, many having spilled contents to the surrounding area. U.S. EPA START samples documented drums and vats to contain cyanide (53,000 ppm), caustics (pH>13) and acids (pH=<1).

The uncontrolled and deteriorating nature of approximately 105,000 gallons of plating solutions, including 250 drums of hazardous waste, poses a real threat of release. If a major release were to occur, waste acid may come in contact with incompatible materials such as the cyanide-bearing electroplating solutions and raw sodium cyanide product material contained in vats and drums. Should a release of acid occur and react with a cyanide source, toxic hydrogen cyanide gas could be generated and emitted. If such an event occurs, contaminants could become airborne and may affect the nearby population.

3) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

During the October 11, 1996, U.S. EPA site investigation, the OSC observed deteriorated drums and containers located within the abandoned site buildings. The drums and containers will be exposed to varying seasonal temperatures (freeze/thaw) which, over time, could promote further deterioration and ultimate failure and release.

4) Threat of fire and/or explosion;

During the October 11, 1996, U.S. EPA site investigation, the OSC observed a flammable storage area in building #2 with containers which have been documented to contain ignitable waste. Drums and containers in the flammable storage area are labelled as containing isopropanol. Waste samples obtained during the site investigation revealed a flashpoint of 74 degrees Fahrenheit. Therefore, the potential for a fire/explosion exists, and, if such an event occurs, contaminants could become airborne and affect off-site locations.

IV. ENDANGERMENT DETERMINATION

Given the site conditions, the nature of the suspected hazardous substances on site, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

The OSC proposes to undertake the following actions to mitigate threats posed by the presence of hazardous wastes at the DE site:

1) Develop and implement a site Health and Safety plan, including an air monitoring plan;

2) Develop and implement a site security plan;

3) Characterize, remove and properly dispose of hazardous substances and wastes at the site in drums, containers, vats, tanks, roll-off boxes and process equipment;

4) Decontaminate and decommission all plating vats and containers at the site;

5) Decontaminate the entire concrete floor and associated building structures;

6) Properly dispose of all contaminated plating vats, containers, debris and building structures which cannot be decontaminated in accordance with U.S. EPA's Off-Site Rule (40 CFR 300.440); and

7) Identify the extent to which site soils have been impacted by the hazardous substances by utilizing soil samples.

The OSC has initiated planning for provision of post-removal site control consistent with the provisions of Section 300.415(k) of the NCP.

The detailed cleanup contractor cost estimate increase is presented in Attachment 1 and estimated project costs are summarized below:

REMOVAL PROJECT CEILING ESTIMATE

EXTRAMURAL COSTS:	
Cleanup Contractor	$1,238,350
Contingency (15%)	185,000
Subtotal	$1,423,350
Total START	$ 100,000
Extramural Subtotal	$1,523,350
Extramural Contingency (20%)	$ 305,000
TOTAL EXTRAMURAL COSTS	$1,828,350
INTRAMURAL COSTS:	
U.S. EPA Direct Costs $30 X [(1,200 Regional Hours)+ 120 HQ Hours]	$ 39,600
U.S. EPA Indirect Costs $65 X (1,200 Regional Hours)	$ 78,000
TOTAL INTRAMURAL COSTS	$ 117,600
TOTAL REMOVAL PROJECT CEILING ESTIMATE	$1,945,950

The response actions described in this memorandum directly address the actual or threatened release at the site of a hazardous substance, or of a pollutant, or of a contaminant which may pose an imminent and substantial endangerment to public health or welfare or to the environment. These response actions do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

Applicable or Relevant and Appropriate Requirements

All applicable, relevant, and appropriate requirements (ARARs) will be complied with to the extent practicable. A letter was sent to Elisabeth Rothschild of the OEPA on November 5, 1996, requesting that the OEPA identify State ARARs. Any State or Federal ARARs identified in a timely manner for this removal action will be complied with to the extent practicable. The EPA off-site rule is required for wastes transported and disposed of off site.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Continued risk to public health and the environment will result if no or delayed action ensues.

VII. OUTSTANDING POLICY ISSUES

None

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this site is contained in the Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Dayton Electroplate site, located in Dayton, Montgomery County, Ohio, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the site. Conditions at the site meet the NCP section 300.415(b)(2) criteria for a removal and I recommend your approval of the proposed removal action. The total project ceiling, if approved, will be $1,945,950. Of this, an estimated $1,728,350 may be used for cleanup contractor costs. You may indicate your decision by signing below.

APPROVE: _____ DATE: 12/6/96
Director, Superfund Division

DISAPPROVE: _____ DATE: _____
Director, Superfund Division

Enforcement Addendum
Attachments
1. Detailed Cleanup Contractor Cost Estimate
2. Administrative Record Index
3. Site Map

cc: E. Watkins, U.S. EPA, 5202-G
D. Henne, U.S. Department of the Interior, **w/o Enf. Addendum**
K. Clouse, OEPA, DERR, **w/o Enf. Addendum**

bcc: A. Baumann, SRT-5J, **w/o Enf. Addendum**
J. El-Zein, SE-GI
R. Karl, SE-5J
W. Messenger, SE-5J
L. Fabinski, ATSDR, ATSD-4J, **w/o Enf. Addendum**
T. Lesser, P-19J, **w/o Enf. Addendum**
S. Renninger, SE-W
J. DeLeon, CS-29A
ERB Read File (C. Beck), SE-5J
ERB Delivery Order File (C. Norman), SE-5J
ERB Site File (M. Bedford, SF Central File Room), SMR-7J
Contracting Officer, MCC-10J, **w/o Enf. Addendum**
A. Lilly, SE-5J

ENFORCEMENT ADDENDUM
NOVEMBER 1996
2 PAGES

HAS BEEN REDACTED

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

ATTACHMENT 1

DETAILED CLEANUP CONTRACTOR ESTIMATE
DAYTON ELECTROPLATE SITE
DAYTON, MONTGOMERY COUNTY, OHIO
NOVEMBER 1996

The estimated cleanup contractor costs necessary to complete the removal action at the Dayton Electroplate site are as follows:

Personnel & Equipment	$550,200
Materials	38,150
Sampling and Analysis	30,000
Transportation and Disposal	620,000
	$1,238,350

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ATTACHMENT 2

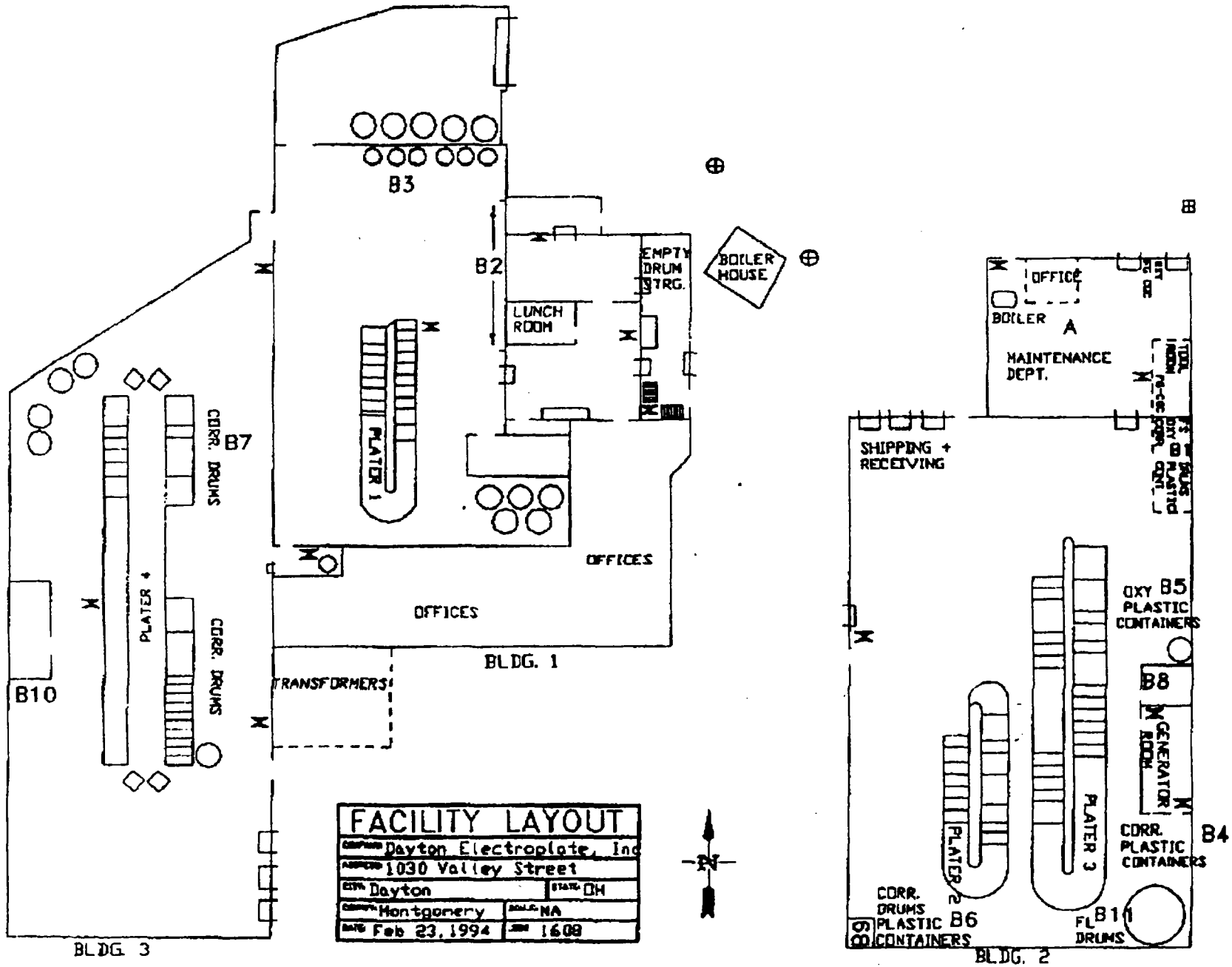
U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
DAYTON ELECTROPLATE SITE
DAYTON, MONTGOMERY COUNTY, OHIO

ORIGINAL
NOVEMBER 13, 1996

DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
02/14/94	Montgomery County Court of Common Pleas	Dayton Electroplate	Complaint for Injunctive Relief and Civil Penalty	10
03/01/94	Dayton Electroplate	Ohio State Emergency Response Commission	Facility Identification Form w/Emergency and Hazardous Chemical Inventory	7
03/17/95	Niedergang, N., U.S. EPA	Biagioli, M., Pickrel, Schaeffer, & Ebling	Consent Agreement and Final Order w/Cover Letter	9
05/04/95	Montgomery County Court of Common Pleas	Dayton Electroplate	Consent Order	9
12/06/95	Rothschild, E., Ohio EPA	Borum, C., Dayton Electroplate	Letter re: OEPA's November 15, 1995 Inspection of the Dayton Electroplate Site	2
08/26/96	Massey, L., Ohio Attorney General's Office	Biagioli, M., Pickrel, Schaeffer, & Ebling	Letter re: Compliance w/Court Orders and Chapter 3752	1
09/12/96	Savage, M., Ohio EPA	El-Zein, J., U.S. EPA	Letter re: OEPA's Request for U.S. EPA to Conduct an Emergency Removal Action at the Dayton Electroplate Site	2

00/00/00	Ecology & Environment, Inc.	U.S. EPA	Site Investigation (PENDING)
00/00/00	Renninger, S., U.S. EPA	Muno, W., U.S. EPA	Action Memorandum: Request for a Time-Critical Removal Action at the Dayton Electro-plate Site (PENDING)



ATTACHMENT 3

INDEPENDENT GOVERNMENT COST ESTIMATE
2 PAGES

HAS BEEN REDACTED

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION